Attorney's Docket No. 048556/274149 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.:	10/808,166	Confirmation No.: 4837
Appellant(s):	Singerle, Jr., Gregory J.	
Filed:	March 24, 2004	
Art Unit:	2457	
Examiner:	Rubin, Blake J.	
Title:	SYSTEM, METHOD AND COMPUTER PROGRAM PRODUCT FOR AUTHENTICATING A CLIENT	

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REPLY BRIEF UNDER 37 CFR § 41.41

This Reply Brief is filed pursuant to 37 CFR § 41.41 and is filed in response to the Examiner's Answer of June 23, 2009, the Examiner's Answer being in response to an Appeal Brief filed April 21, 2009. This Brief addresses a number of points arising from the Appeal Brief, as well as the Examiner's Answer to the same.

10. ***Response to Argument.***

The Examiner's Answer responded to Appellants' arguments under subsections A and B of section 7 of the Appeal Brief. Accordingly, Appellants address the Examiner's position under those same subsections below. Again, all of the pending claims, namely Claims 1-97, stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Application Publication No. 2002/0013904 to Gardner.

A. Claims 1-73 are Patentable

As explained in Appellant's Appeal Brief, in contrast to independent Claim 1, Gardner does not expressly or inherently teach an apparatus for authenticating a client in which a set of labels including column and row headers identifying columns and rows of a matrix including

elements from which a passcode is formulated are unknown at the client until that set is sent to the client. Gardner discloses a method of remote authentication whereby a variable PIN (VPIN) (alleged passcode) may be derived from numbers or letters (alleged elements) randomly generated and held in a matrix or grid (alleged authentication matrix) available to the user, where those numbers/letters may be identified by grid references (alleged labels). As previously explained, however, in every embodiment of Gardner, the user knows upfront the grid references identifying the numbers/letters from which the VPIN is derived. *See* Gardner, paragraph [0033].

As also explained in Appellant's Appeal Brief, Gardner discloses two primary manners of authentication based on a VPIN derived from a grid, namely a non-interactive manner and an interactive manner, again, both of which include the user knowing upfront the column headings **32** and row labels **33** (alleged column and row headers) identifying the numbers/letters from which a VPIN is derived. *See* Gardner, FIG. 3. In the interactive manner, Gardner may disclose particular numbers/letters identified by grid references and their order within a derived VPIN being unknown to the user until their selection by a master system. But even in this embodiment, the user still knows the column headings **32** and row labels **33** (column and row headers) from which those numbers/letters are selected. The client of independent Claim 1, on the other hand, does not know the set of labels including the column and row headers of the respective labels (the elements of which a passcode is formulated) ahead of being sent that set of labels. And at least due to the fact that the user knows upfront the column headings **32** and row labels **33** (column and row headers) enables the non-interactive manner of authenticating that user, Appellant respectfully submits that there is no apparent reason to modify Gardner to include this feature. *See* MPEP § 2143.01 (explaining that "[a] proposed modification cannot change the principle of operation of a reference").

To further highlight the aforementioned distinction between the claimed invention and Gardner, in either the non-interactive or interactive manner of authentication, the Gardner scheme offers less security than that of the claimed invention, albeit with flexibility in allowing operation in either the non-interactive or interactive mode. Consider a matrix of 43 elements arranged as in FIG. 3 of Gardner or in a manner similar to that of FIG. 2 of the present application. In accordance with Gardner's scheme, in either the non-interactive or interactive

manners of authentication, the system is limited to pulling digits from two cells of the matrix each day (the smallest delineation of time on the matrix) – thereby cutting off from use the remaining 41 cells of the matrix. In accordance with the claimed invention, on the other hand, through the user not knowing the labels before being prompted for them, the system is not limited to any subset of the cells in any timeframe, and may therefore utilize the digits from all 43 cells each day (or more particularly, for each use of the matrix). The same issue with Gardner would also seem to persist even to matrices with further delineations of time (see FIG. 4) in that Gardner's scheme restricts the number of cells usable at any given instance (to those corresponding to the particular date/time of use), whereas the claimed invention permits use of all of the cells at any given instance.

In the Response to Arguments section of the Examiner's Answer, the Examiner again proffers a "nested matrix" interpretation of Gardner in which each cell of Gardner's grid is a "nested matrix" or "nested grid" including a single row and a number of "nested columns" corresponding to the number of numbers/letters in the respective cells. As stated in the Examiner's Answer:

> *... The column and row headers which are unknown to the user are disclosed by Gardner in an example VPIN in paragraph [0062], where Gardner reference [sic] a nested column header in order to produce the proper VPIN, M3D2D1M1[1] = Month **3rd**, Date **2nd**, Date **1st**, Month **2nd**. Here the nested column header, which for the first digit of the VPIN is the third column of the Month element "489", [sic] is unknown to the user until being prompted. The Month element, in this example, "489", [sic] can be viewed as an indication of the row of the matrix, which is nested within the Calendar matrix of Gardner.*

Examiner's Answer of Jun. 23, 2009, p. 16 (emphasis in original).

Again, and as illustrated by the Examiner's explanation above, even in the "nested matrix" interpretation of Gardner, the user does know the row of the matrix before being prompted for the VPIN. In the example of paragraph [0062], before being prompted for the VPIN, the user knows the date from which the VPIN will be derived (July 24th); and accordingly, the user knows the rows of the grid from which the digits of the VPIN will be

[1] Appellant notes that the example of paragraph [0062] is actually M3D2D1M2, as opposed to M3D2D1M1 as noted by the Examiner.

pulled (only one row for the month, and the row labeled "2" for the day) – even if one could argue that the user does not know the particular digits (alleged nested columns). Thus, even given an unknown "nested column header" interpretation of Gardner as suggested, Gardner does not also have an unknown "nested row label." The claimed invention, which does not base cell selection on information known to the user outside of the authentication scheme, recites that labels including both column and row headers are unknown before their receipt by the user.

Appellant therefore again respectfully submits that independent Claim 1, and by dependency Claims 2-8, 60 and 61, is patentably distinct from Gardner. Independent Claims 9, 17, 25, 33, 42 and 51 include subject matter similar to that of independent Claim 1, including a set of labels including columns/rows of a matrix including elements from which a passcode is formulated are unknown at the client until that set is sent to or received by the client. Thus, Appellant also respectfully submits that independent Claims 9, 17, 25, 33, 42 and 51, and by dependency Claims 10-16, 18-24, 26-32, 34-41, 43-50, 52-59 and 62-73, are also patentably distinct from Gardner, for at least the reasons given above with respect to independent Claim 1.

1. Dependent Claims

In addition to the above reasons, Appellant again respectfully submits that various ones of dependent Claims 2-8, 10-16, 18-24, 26-32, 34-41, 43-50 and 52-73 recite features further patentably distinct from Gardner. As explained in Appellant's Appeal Brief, Gardner does not explicitly or inherently disclose the feature of dependent Claim 60 (and similarly Claims 62, 64, 66, 68, 70 and 72). That is, Gardner does not explicitly or inherently disclose sending a set of labels to the client in response to the client effectuating logging in, where the logging in includes prompting the client for at least one piece of identifying information, and receiving the piece(s) of identifying information from the client – the piece(s) of identifying information including a user name and a password associated with a client user.

As previously explained, the Examiner in rejecting the respective claims cites paragraphs [0041] and [0042] of Gardner in which Gardner discloses a method of registering a user to use the disclosed VPIN system. Now, in the Response to Arguments section of the Examiner's Answer, the Examiner cites paragraph [0083] and FIGS. 5A and 5B of Gardner in which

Gardner discloses a user entering his account number during its authentication procedure. Even given this new interpretation, however, Gardner still does not teach or suggest that its logging in includes prompting the user for, and receiving, a username and password from the client, as recited by Claims 60, 62, 64, 66, 68, 70 and 72. That is, nowhere does Gardner disclose its account number in anyway corresponds (functionally or otherwise) to a username and password.

B. Claims 74-97 are Patentable

As also explained in Appellant's Appeal Brief, in contrast to another aspect of the claimed invention reflected for example by independent Claim 74 (similar to independent Claim 1), Gardner does not expressly or inherently teach an apparatus for authenticating a client in which a set of labels are provided to a user, where the labels include column and row headers identifying columns and rows of a matrix are unknown at the client until that set is provided to the user. And for at least this reason, Appellant respectfully submits that independent Claim 74, and by dependency Claims 75-81, is patentably distinct from Gardner. Independent Claims 82 and 90 include subject matter similar to that of independent Claim 1, including the recited logging in and authentication procedure. Thus, Appellant also respectfully submits that independent Claims 82 and 90, and by dependency Claims 83-89 and 91-97, are also patentably distinct from Gardner, for at least the reasons given above with respect to independent Claim 74.

1. Dependent Claims

In addition to the above reasons, Appellant again respectfully submits that various ones of dependent Claims 83-89 and 91-97 recite features further patentably distinct from Gardner. For example, dependent Claim 81 (and similarly Claims 89 and 97) recites that the identifying information received by the processor comprises a user name and a password associated with the user. This feature is also absent from Gardner.

Again, for this feature, the Examiner's Answer now cites paragraph [0083] and FIGS. 5A and 5B of Gardner in which Gardner discloses a user entering his account number during its authentication procedure. Even given this new interpretation, however, Gardner still does not teach or suggest that its logging in includes prompting the user for, and receiving, a username

and password from the client, as recited by Claims 81, 89 and 97. That is, nowhere does Gardner disclose its account number in anyway corresponds (functionally or otherwise) to a username and password

CONCLUSION

For at least the foregoing reasons as well as those in Appellant's Appeal Brief, Appellant respectfully requests that the rejections be reversed.

Respectfully submitted,

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